Application No.: 09/557,250

Office Action Dated: September 7, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A method for utilizing applications' state dependency information to efficiently perform a backup service operation in a computer system,

comprising the acts of:

registering applications loaded in said computer system with an application dependency application programming interface (API) for communications of application's state dependency information among applications, a common software agent, a storage component utilized by said agent and a backup service;

storing in said storage component at least one application's state dependency information; and

communicating said at least one application's state dependency information from said storage component to said backup service.

- 2. (Previously Presented) The method as recited in claim 1, wherein said backup service includes a snapshot service.
- 3. (Previously Presented) The method as recited in claim 1, wherein said backup service includes a determination of an application freeze order.
- 4. (Previously Presented) The method as recited in claim 3, wherein said backup service includes an execution of the freezing of applications in the order reflected by the determined application freeze order.
- 5. (Previously Presented) The method as recited in claim 1, further comprising the act of loading said application dependency application programming interface (API) into said computer system.
- 6. (Previously Presented) The method as recited in claim 1, further comprising the act of said backup service requesting a set of application dependency information from a common software agent for use in connection with the restore operation.

Application No.: 09/557,250

Office Action Dated: September 7, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

7. (Previously Presented) The method as recited in claim 6, wherein said set of application dependency information is the minimum set of information from said storage component for successfully completing the restore operation.

- 8. (Previously Presented) The method as recited in claim 6, further comprising the act of said agent issuing a request to at least one registered application for information from said set of application dependency information requested by the service.
- 9. (Previously Presented) The method as recited in claim 1, further comprising the act of at least one registered application communicating information to said agent in response to a request by said agent, said information relating to said at least one application's state dependency information.
- 10. (Previously Presented) The method as recited in claim 1, further comprising the act of unregistering an application.
- 11. (Previously Presented) The method as recited in claim 1, wherein said API uses a communication format comprising XML.
- 12. (Previously Presented) The method as recited in claim 1, wherein said agent stores said at least one application's state dependency information in a tabular format reflective of hierarchical application dependencies in said storage component.
- 13. (Previously Presented) The computer-readable medium having computer-executable instructions for instructing a client computer to perform the acts of a method recited in claim 1.
 - 14. (Canceled)
 - 15. (Canceled)

Application No.: 09/557,250

Office Action Dated: September 7, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

16. (Previously Presented) An application programming interface (API) embodied in a computer readable media having computer executable instructions for use in a computer system, wherein said API enables an agent to collect, store and package information about state dependencies among applications in response to a request by a service, and thereafter delivers said information to said service for further processing by said service.

- 17. (Previously Presented) The API as recited in claim 16, wherein the service to which said agent delivers said information is a backup service.
- 18. (Previously Presented) The API as recited in claim 16, wherein said service includes a snapshot service.
- 19. (Previously Presented) The API as recited in claim 16, wherein said service includes a determination of an application freeze order.
- 20. (Previously Presented) The API as recited in claim 16, wherein said agent stores said application dependency information in a tabular format reflective of hierarchical application dependencies in a storage component.
 - 21. (Canceled)
 - 22. (Previously Presented) A computer system, comprising:

a plurality of applications loaded in said system, wherein at least one of said applications has at least one external state dependency with other said applications associated therewith;

a storage component for storing application state dependency information, wherein said dependency information is configured to include information about said at least one external state dependency;

an agent that functions according to communication protocols of an application programming interface (API) in said system for processing said dependency information, wherein said dependency information includes information about dependencies among

Application No.: 09/557,250

Office Action Dated: September 7, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

applications executing on the system, communicated to said API from said agent and for storing the dependency information in said storage component; and

a service for making requests to said agent for a set of dependency information, wherein said agent collects, stores and packages said dependency information in response to a request by said service, and delivers said set of dependency information to said service for further processing by said service.

- 23. (Previously Presented) The computer system as recited in claim 22, wherein the service to which said agent delivers said dependency information is a backup service.
- 24. (Previously Presented) The computer system as recited in claim 22, wherein said service includes a snapshot service.
- 25. (Previously Presented) The computer system as recited in claim 22, wherein said service includes a determination of an application freeze order.
- 26. (Previously Presented) The computer system as recited in claim 22, wherein said agent stores said at least one application's state dependency information in a tabular format reflective of hierarchical application dependencies in a storage component.
- 27. (Previously Presented) The method as recited in claim 22, wherein said set of application dependency information is the minimum set of information from said storage component for successfully completing the service.